

SYSTEM AND METHOD FOR INTERFERENCE MITIGATION  
USING ADAPTIVE FORWARD ERROR CORRECTION IN AN RF DATA  
TRANSMISSION SYSTEM

ABSTRACT

An adaptive forward error correction system for mitigating interference and fading in RF data transmissions has a hub and subscriber stations transmitting and receiving forward error correction encoded data packets. The hub and subscriber stations count codewords and/or packets received with errors. The hub calculates a type of quality measure using the counts and compares this measure to quality thresholds. If an upper threshold is exceeded, the hub increases a size of transmitted active data fields and decreases a size of blank data fields. If a lower threshold is not met, the hub decreases a size of transmitted active data fields and increases a size of blank data fields. Similar changes by subscriber stations are directed by the hub. These changes are coordinated in headers associated with the packets or codewords, via a separate control channel or multi cast via a data stream used for transmitting the data packets.